# The Health Care Team

# The Role of Pediatric Nurse Practitioners as Viewed by California Pediatricians

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■ A single-mailing questionnaire surveyed attitudes of members of District IX, American Academy of Pediatrics (California) toward the role of the pediatric nurse practitioner (PNP). Responses from 568 members (53%) represented a broad range of age, practice type (58%) group, 25% solo, 17% "other"), geographic location, and opinion. The most favorable attitudes toward PNP use were expressed by young pediatricians in large-group and "other" categories; least favorable were solo practitioners older than 60 years. Practice type was more important than age. Most respondents expressed the opinion that a pediatrician-PNP team approach would enrich both professions, and that parental acceptance of the PNP was likely; but that PNP use would not reduce costs. Majorities favored the concept of the PNP as part of the practice team but under constant pediatrician surveillance: seeing the patient for part of the visit and participating under supervision in care for minor illness, but not replacing the pediatrician even in well-child care. Some PNPs hope for a more independent role on the pediatrician-PNP team. Modification of both pediatrician and PNP ideas appears requisite to a team approach that will satisfy both professional groups and the public.

INCREASED USE OF ALLIED HEALTH PERSONNEL is being widely recommended as a means of improving the delivery of health care to the peo-

ple of the United States. Surveys by Yankauer and colleagues indicated that a majority of 155 responding Massachusetts pediatricians1 and most of some 6,000 pediatricians throughout the nation<sup>2</sup> were willing to delegate numerous specific patient-care tasks to a variety of allied health personnel, from registered nurses to receptionists. Their surveys were not specifically concerned with the pediatric nurse practitioner (PNP), prob-

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ably the most firmly established and clearly defined allied health professional currently available to extend primary child health care. At least 18 training programs for PNP's have been started in this country, and it is estimated that 350 PNP's have been trained since 1965. A joint statement of the American Academy of Pediatrics and the American Nursing Association defines the category of PNP and offers guidelines of functions, responsibilities, and education for this role.

Initial reports<sup>3,4,7-11</sup> indicated that the PNP was readily accepted by patients in a variety of pediatric practice situations; that the PNP was professionally and economically beneficial to the practice, and appeared to be stimulated by the new relation to patient and pediatrician. Some later observers, <sup>12,13</sup> however, have raised questions about patients' and physicians' acceptance of the PNP in pediatric practice.

Since acceptance by the physician is important to any role on the health-care team, we conducted a survey of California pediatricians' attitudes toward the PNP in which we tried to elicit a definition of these pediatricians' concepts of an appropriate role for the PNP in private practice. In January, 1971, the Executive Committee of the California Section (District IX) of the American Academy of Pediatrics helped sponsor the survey reported here. The findings indicate that there may be some disparities (1) between the pediatrician's theoretical acceptance of the PNP concept and his idea of the PNP's practical role, (2) between the attitudes toward PNP's held by pediatricians in various types of practice and age groups, and (3) between the role of the PNP as envisioned by the majority of these California pediatricians and as anticipated by PNP's themselves.

#### Procedure

A questionnaire (Appendix) was designed by a social psychologist working with pediatricians with the goal of obtaining measures of pediatrician acceptance or nonacceptance of the PNP. The pediatrician was requested to respond to each of 37 statements by indicating "agreement," "strong agreement," "disagreement," or "strong disagreement." Some of the statements explored whether the pediatrician believes that PNP's will enhance care for patients, will help to lessen the cost of health care, or will be accepted by physicians and patients. Others probed the pediatri-

cian's concept of the PNP role in private practice, and of PNP acceptance in group and in solo practice. The questionnaire was made brief enough to encourage maximal response to a single mailing, rather than attempting to achieve maximal numbers of responses by three successive mailings, as was done by Yankauer and associates.<sup>1,2</sup>

To develop the questionnaire, ten pediatricians and ten nonphysicians familiar with the medical field (including two psychologists, three psychology graduate students, two social workers, two registered nurses and one medical secretary) rated each statement as "for" or "against" the concept of PNP involvement in pediatric practice. Statements rated for or against such involvement by 75 percent or more of the 20 raters were so designated for study purposes. A total of 12 statements were thus rated "positive" and 18 were rated "negative." If fewer than 75 percent of both rating groups agreed about the positive or negative character of the statement, it was used only for the information it furnished, not for general attitudinal survey. Seven questions fell into this latter category. The judges were employed only to assign questions to "positive," "negative," or "information only" categories.

A system for scoring answers made by respondents was then devised to quantitate the over-all response to the PNP concept; since 12 statements had been rated "positive" and 18 "negative," a score of 36 was assigned to the unmarked questionnaire. Agreement by a respondent with a favorable statement added 3 points to this score; agreement by a respondent with a negative statement subtracted 2 points. Thus, if a respondent agreed with all of the 18 negative statements and disagreed with all of the 12 positive statements, his total questionnaire would be scored 0; the converse would yield a score of 72. For scoring purposes, "strongly agree" and "tend to agree" were both considered agreement, while "strongly disagree" and "tend to disagree" were considered disagreement with the statement.

In January 1971, 1150 questionnaires were mailed out by the American Academy of Pediatrics in a single mailing to all District IX members. To maintain anonymity, questionnaires were unmarked but they asked the recipient's age, sex, years in practice, type of practice (solo, group and group size, or "other"), and place of practice (rural, urban, suburban); and responses were separated by postmark into Northern and

TABLE 1.—Type of Practice by Age Group of 556 Responding California Pediatricians for Whom Both Data Were Available\*

Age in Years	Number in Group	Percent of Total	Type of Practice				
			Solo	Small Group†	Medium Group‡	Large Group§	Other¶
			%	%	%	%	%
<40	143	25.7	19.6	16.7	25.4	21.0	17.4
40-49	246	44.3	21.4	18.9	21.0	17.2	21.4
<b>50</b> -59	111	19.9	31.8	16.4	29.1	12.7	10.0
60+	56	10.1	41.2	21.6	17.7	7.8	11.8

<sup>\*</sup>Either age or type of practice was not indicated by 12 respondents.

Southern California according to a line drawn on the map across the northern boundary of the Tehachapi mountain range.

#### Results

After mailing, it was learned that 45 of the questionnaires had been sent to affiliate members of the Academy who are in other specialties, who were on leave, or were in emeritus status; the few replies received from these affiliates were not considered. Of the remaining 1105 questionnaires, 568 (about 53 percent) were returned, representing a majority of California pediatricians and including pediatricians in all age groups with a broad representation of types of practice, shades of opinion, and geographic locations. It should be emphasized that the results reported represent opinions only of respondents, not of all California pediatricians.

#### Description of Responding Pediatricians

The distribution of respondents according to age and type of practice is shown in Table 1. Their mean age was 47 years; the mean number of years in practice was 17. Eleven percent were women. About an equal number responded from Northern (241) and from Southern (262) California (65 postmarks were not legible), reflecting the distribution of pediatricians in the state. Responses to the questionnaires showed no difference in attitude between Northern and Southern California pediatricians. Only 3 percent characterized their practice as rural. Many of the others had difficulty in deciding whether their practice was urban or suburban, so that these two categories were combined. Fifty-eight per-

cent of the pediatricians were in group practice, 25 percent in solo practice, and 17 percent in "other" categories, mainly public health, research, administration, or teaching. Of the group practitioners, most (23 percent of the total respondents) were in "medium-sized" groups, defined in the questionnaire as three to five pediatricians; 18 percent were in two-pediatrician groups, and 16 percent in "large" groups (six or more pediatricians).

### Responses to Individual Statements

1. Role of the PNP, and Relation to the Pediatrician:

Pediatricians overwhelmingly agreed (96 percent) that in order to function successfully the PNP would have to be fully accepted by the physician. Eighty-six percent stated that the PNP should only supplement the pediatrician by seeing each patient for a portion of the visit; 86 percent, that the PNP should not totally replace the physician in well-child care. However, 75 percent indicated that the PNP could take part in the care of children with minor illness. Seventy-one percent replied that utilization of PNP's by pediatricians would lead to enrichment and expansion of both professions, but 68 percent believed that the PNP should be under the constant observation of the pediatrician.

2. Location and Nature of Practice Appropriate to PNP Use:

Eighty-six percent of the respondents agreed that PNP's might be best utilized in areas where health care is now inadequate, and it was generally considered that PNP's might provide a major solution to lack of pediatric care in such

<sup>†</sup>Two pediatricians.

<sup>‡3-5</sup> pediatricians.

<sup>\$</sup>Six or more pediatricians.

<sup>¶</sup>Mainly public health, research, administration, teaching.

areas. As pointed out earlier, however, only 3 percent of pediatricians characterized their practice as rural. Respondents to this questionnaire may therefore have been favoring PNP utilization in practice situations other than their own. In a similar paradox, 57 percent of solo pediatricians agreed that PNP's would best be utilized in large group practices, while 74 percent of those actually in the large groups disagreed with this statement.

### 3. Parental Acceptance:

Parental acceptance of the PNP was considered likely by 75 percent of pediatricians. Although 64 percent agreed that many mothers would rather talk to a PNP than to a pediatrician about certain problems, 58 percent felt that if given a choice a mother would always prefer to see a pediatrician, even if the child is healthy. A similar small majority (56 percent) expressed the belief that mothers would accept a PNP most readily in large group practice, though only 17 percent of the responding pediatricians practiced in large groups.

#### 4. Quality of Care and Costs:

Fewer than one-third of the respondents agreed with statements that PNP's would lead to decreased quality of care. Only 15 percent believed that PNP's are a fad and would create more problems than they would solve. A majority (64 percent) predicted that utilizing PNP's would not decrease health care costs, in view of the expense of training and supervision.

#### Scoring

Respondents held generally favorable attitudes (questionnaire scores above the neutral level of 36) toward the concept of PNP practice with pediatricians. The over-all median score was 50; the mean score, 46. The percentage distribution of scores is shown in Chart 1. When numerical scores were plotted against cumulative percentages, the distribution for the 568 respondents was displayed as an "S" curve (Chart 2), indicating a broad and smoothly spread spectrum of opinion, with the curve skewed to the positive side.

When respondents were separated into four age groups (below 40 years, 40 to 49, 50 to 59, and 60 and over), those under age 50, the largest group of practicing pediatricians, appeared most favorable toward the utilization of PNP's in prac-

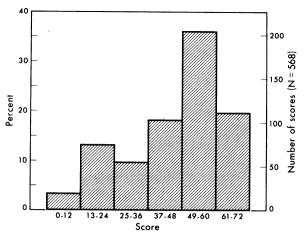


Chart 1.—Percentage distribution of scores representing expressions of attitude toward use of PNPs in pediatric practice by 568 California pediatricians.

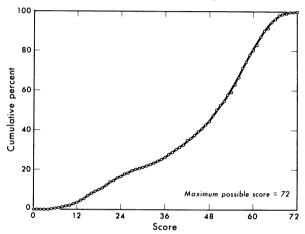


Chart 2.—Distribution curve of attitude scores represented in Chart 1.

tice. Those in their 50s were less positive in their attitudes. The greatest percentage of negative responses was from physicians older than 60. The mean scores for the age groups were: below age 39, 48; ages 40 to 49, 48; ages 50 to 59, 42; over 60, 41. Similarly, the largest number of scores indicating a positive attitude toward use of PNP's came from those pediatricians who had been in practice less than 20 years, and the largest number of negative responses was from physicians who had been in practice more than 30 years.

A more important determinant of attitude than age and time in practice was the type of practice. Physicians in solo practice were least likely to view the PNP role favorably, although even they expressed a neutral rather than a negative attitude. Members of large groups and pediatri-

cians in the categories designated as "other" were most favorable to the PNP concept. Mean questionnaire scores were: solo practitioners, 38; two-pediatrician group, 42; three to five-pediatrician group, 43; large group, 55; "others," 56.

#### **Individual Comments**

Although no comments were solicited, 31 pediatricians wrote comments which varied from a few words to a two-page single-spaced letter, which generally expressed either strong agreement or strong disagreement with the PNP concept. Some were about current utilization of RN's or were words of caution for the future.

Strong agreement with the PNP concept came from pediatricians who have worked with or are interested in working with PNP's. It is significant that some pediatricians have apparently informally trained their own nurses in many of the tasks envisioned for the PNP.

Strong disagreement with the PNP concept was manifested by physicians who questioned the reality of the "manpower crisis," feared that the physician-patient personal relationship would deteriorate with the use of the PNP, wondered about the possibility of increased malpractice rates, and had concerns about the development of a 'second-class M.D.' Some recommended that more pediatricians, rather than PNP's, should be trained. A number of respondents expressed the opinion that PNP's would be useful, but not in their practices. Some solo practitioners suggested that PNP's might be used in large group practices, where relationships were said to be more impersonal; while a few group pediatricians considered that overworked solo practitioners would have the most need for PNP's.

A number of correspondents cautioned that the use of PNP's would increase the pediatrician's work load. It was pointed out that if a PNP takes over a major portion of the routine pediatric practice, the pediatrician will spend most of his time with sick patients, and will also be able to increase the total number of children under his care. He must then work longer hours, take more night and weekend calls (for which the PNP would be of no help), and would be subject to greater "nervous tension."

#### Discussion

Since those who responded to this questionnaire represent 53 percent of California pediatricians, it is obvious that only with caution can the views expressed be generalized to all pediatricians in this state. The percentage is large enough, however, that the opinions expressed merit serious consideration, and we offer these results as indicating the attitudes of those pediatricians who were sufficiently interested to answer a questionnaire mailed only once. Within these limits, the responses indicated that younger pediatricians tend to be engaged in group practice, and that most solo practitioners are in the later decades of life; this observation is in agreement with that of other observers.<sup>1,2</sup>

Our survey confirms findings in previous studies,1,2 that pediatricians have a generally positive attitude toward the increased use of allied health personnel. Since pediatricians seem to like the idea of delegating certain aspects of their work to PNP's, one wonders why more PNP's are not employed in private practice.13 Fewer than 12 of the 88 PNP's trained at the University of Colorado Medical Center since October 1965 were working with pediatricians in private practice as of January 14, 1972.14 The great majority were in public health agencies or in teaching positions. Similarly, 90 percent of 256 California registered nurses delivering primary health care to children were working in public health agencies, schools, or other situations that differ considerably from private practice.15 Eighty percent were directly responsible to non-physicians, such as other nurses, public health administrators, or school officials. The majority stated that they felt insecure about this and that they would prefer more physician guidance and communication.

The most important reason that there are so few PNP's in private practice may be a difference between the concepts of the PNP role held by pediatricians and by PNP's themselves. Our survey indicates that the pediatrician is willing to delegate certain tasks but hesitates to allow the PNP to function with much independence in direct patient care. This is in accord with office practice tradition: recent analyses 16,17 have shown that the nurse's role in the pediatric office is actually no different from that of a non-nurse office aide. Reservations expressed by respondents to the present questionnaire reflect this tradition. Some were concerned that an independent role for the PNP in office practice might lead to two levels of care.

Not all nurses interested in providing primary

care for children appear to want close physician supervision. Several recent articles suggest that nurses feel they can function more independently in well-child care; and that they aim to extend their role further into illness care. 18-22 Some PNP educational programs emphasize that they are training nurses in the extended role to act "not simply as physicians' assistants" but as independent and parallel professionals.22

Difficulties of another category may lead pediatricians to hesitate to employ PNP's. These include concern about a heavier and less wellbalanced work load for the pediatrician. Some have predicted that the use of PNP's would eventually force the pediatrician to change the style, and even the location, of an established practice. Financial benefit from the use of the PNP in office practice depends upon the nature of the practice, the manner in which charges are made, and the number of patients scheduled for examination by the PNP. Although Schiff and coworkers11 reported that after employment of a PNP income rose in a private two-pediatrician office, Charney and Kitzman,23 in a more extensive and controlled study, could demonstrate no real cost

Any suggestion of a tendency to two levels of pediatric care must be avoided. Although most observers have indicated that patients accept PNP's well, Conant and associates12 recently noted that lower middle-class and working-class patients do not accept care from allied health professionals as well as do upper middle-class patients. The shortage of health care for the nation's children is mainly among the poor. The needy must not be made to feel that the use of PNP's is another attempt to foist second-class care on them, while pediatricians and first-class care are reserved for upper-income patients.

If a pediatrician-PNP approach is to help solve the problems of pediatric care in this country, some pediatricians will need to develop a keener recognition of the degree of responsibility and independent action which PNP's can successfully assume. PNP educational programs will need to emphasize the practical team relationship of the PNP with the physician, with practicing pediatricians playing an important role in the training period.

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#### REFERENCES

- 1. Yankauer A, Connelly JP, Feldman JJ: A survey of allied health worker utilization in pediatric practice in Massachusetts and in the United States. Pediatrics 42:733-742, 1968
- 2. Yankauer A, Connelly JP, Feldman JJ: Pediatric practice in the United States—With special attention to utilization of allied health worker services. Pediatrics 45(Suppl):521-554, 1970
- 3. Ford PA, Seacat MS, Silver GA: The relative roles of the public health nurse and the physician in prenatal and infant supervision. Am J Public Health 56:1097-1103, 1966

  4. Silver HK, Ford LC, Stearly SG: A program to increase health care for children: The pediatric nurse practitioner program. Pediatrics 39:756-760, 1967
- - 5. Duiker WJ: Personal communication, 1972
- 6. Joint Statement of the American Nurses' Association, Division on Maternal and Child Health Nursing Practice, and the American Academy of Pediatrics—Guidelines on short-term continuing education programs for pediatric nurse associates. Pediatrics 47:1075-1079, 1971
- 7. Skinner AL: Parental acceptance of delegated pediatric services. Pediatrics 41:1003, 1968
- 8. Day LR, Egli R, Silver HK: Acceptance of pediatric nurse practitioners. Parents' opinion of combined care by a pediatrician and pediatric nurse practitioner in a private practice. Am J Dis Child 119: 204-208, 1970
- 9. Patterson PK, Bergman AB, Wedgewood RJ: Parent reaction to the concept of pediatric assistants. Pediatrics 44:69-75, 1969
- 10. Strain JE, Miller JD: The preparation, utilization, and evaluation of a registered nurse trained to give telephone advice in a private pediatric office. Pediatrics 47:1051-1055, 1971
- 11. Schiff DW, Fraser CH, Walters HL: The pediatric nurse practitioner in the office of pediatricians in private practice. Pediatrics 44: 62-68, 1969
- 12. Conant L, Jr., Robertson LS, Kosa J, et al: Anticipated patient acceptance of new nursing roles and physicians' assistants. Am J Dis Child 122:202-205, 1971
- 13. Yankauer A, Connelly JP, Andrews P, et al: The practice of nursing in pediatric offices—challenge and opportunity. N Engl J Med 282:843-847, 1970
- 14. Smith AN: Personal communication, Jan 14, 1972
- 15. Fakkema LV: A history of the way in which nurses are taking on increasing responsibility in primary health care services for children in California, 1953-1971. Bureau of Maternal and Child Health, California State Department of Public Health, Berkeley, July, 1971
- 16. Patterson PK, Bergman AB: Time-motion study of six pediatric office assistants. N Engl J Med 281:771-774, 1969

  17. Yankauer A, Connelly JP, Feldman JJ: Task performance and task delegation in pediatric office practice. Amer J Public Health 59: 1104-1117, 1969
- 18. Bates B: Doctor and nurse: Changing roles and relations, N Engl J Med 283:129-134, 1970

  19. Feldman M: Changing nursing responsibilities in ambulatory child care, In The Right to Be Healthy: A Report of Two Conferences on Health Manpower Utilization and Education. Bureau of Maternal and Child Health, California State Department of Public Health, December, 1970, pp 23-25
- 20. Gozzi E: The nurse practitioner in group practice, In op cit, Ref 19, pp 19-21
- 21. Roth C: Family nurse practitioner program, In op cit, Ref 19,
- 22. Nurses, too, learn primary care. Medical World News, Oct 22, 1971, p 19
- 23. Charney E, Kitzman H: The child-health nurse (pediatric nurse practitioner) in private practice—A controlled trial. N Eng J Med 285:1353-1358, 1971

#### **APPENDIX**

## Questionnaire Sent to 1150 Pediatricians

A major solution to providing pediatric health care in areas and settings where such care is inadequate would be the utilization of PNA's.

\*The titles, 'Pediatric Nurse Associate' (PNA), and 'Pediatric Nurse Practitioner (PNP) are used interchangeably.

(2)\_\_\_\_Extensive use of PNA's will adversely affect (26) \_\_\_\_Many mothers would feel freer to talk to a pediatric care because it will separate patient and phy-PNA about certain problems than they would with a pediatrician.  $(3)_{-}$ The success of a PNA in a practice will de- $(27)_{--}$ \_The utilization of PNA's can only lead to enpend as much on the physician's acceptance of the PNA richment and expansion for both professions. as on the patient's acceptance. \_It would be advisable for nurses to focus on (4)\_\_\_\_Utilization of PNA's, even if not essential, could result in better health care for normal children. improving current nursing practices rather than extending themselves into other areas such as PNA. (5) Most pediatricians spend too much of their time on well child care, and would like more time to \_\_The presence of the PNA might eventually lead to deterioration of the doctor-patient relationship. spend on the ill child. The use of PNA's will eventually sacrifice qual-Inasmuch as well child care is important, the ity of care for quantity (the number of patients cared pediatrician cannot afford to delegate it to another person. for). (7)\_\_\_\_The PNA's primary usefulness is in a large group practice rather than in a private pediatric office (31) \_\_\_\_Pediatricians should make more attempts to persuade retired nurses to return for training as PNA's. (that is, with one or two pediatricians). The PNA performs little more than the duties \_Most mothers will not accept well child care currently being performed by most pediatric office nurses. provided by PNA's. \_PNA's should perform only those activities the \_\_Most pediatricians, in general, do not like the  $(9)_{-}$ pediatrician cannot perform because of his time limitaidea of utilizing PNA's in well child care. There may be some pediatric activities a PNA  $(34)_{--}$ Many nurses and LVN's are likely to feel can perform more effectively than a pediatrician. threatened by the presence of PNA's. \_If given a choice, a mother will always choose It is conceivable that the future role of the to see a pediatrician rather than a PNA, even if the child PNA could include the treatment of children with minor is healthy. abnormalities and/or illness.  $(12)_{-}$ The role of the PNA should be to supplement At present, PNA programs are being sponsored the pediatrician by seeing children for a portion of their and pushed by a well organized minority of pediatricians. regular visits, thus giving the pediatrician time to extend Many mothers would prefer to see a pediatrihis care to more patients. cian rather than a PNA since they might be afraid the \_The PNA, if utilized, should be under the con-PNA would not pick up some abnormalities. stant observation of a pediatrician. Please rate the following items as to their rela-The PNA would have greater acceptance among tive importance to the mother upon her visit to your ofmothers attending a large group practice than among mothers visiting a solo practitioner in his office. fice by placing one of the following appropriate numbers in the blank space provided in front of the item. The use of PNA's can only be considered a "fad" in providing health care rather than a more lasting 1 VERY IMPORTANT 3 MODERATELY 2 MODERATLY UNIMPORTANT **IMPORTANT** (16) \_\_\_\_\_Eventually, the number of problems PNA's will create will be greater than the number of problems **4 VERY UNIMPORTANT** (a)\_\_\_\_A thorough physical examination they will resolve. (b)\_\_\_\_Interest shown in the child The utilization of PNA's will considerably re-(c)\_\_\_\_Advice or information on child rearing duce the costs of medical care. (d)\_\_\_\_Reassurance of the child's normal dvelopment (18)\_\_\_\_The role the PNA should be to replace the pediatrician in well child care. (e)\_\_\_\_Full and clear explanations (19)\_\_\_\_It is likely that the PNA will, on occasion, in-(f) A sympathetic and understanding pediatrician trude on the pediatrician's area of specialization. The pediatrician's efforts should be directed Your age:\_\_\_\_years Sex:\_\_\_\_\_Male \_\_\_\_\_Female to the treatment and care of patients rather than to the training of PNA's. Length of time in practice as a pediatrician: \_\_\_\_years (21)\_\_\_\_ \_Use of PNA's may lead to a reduction in the Type of practice (check one): quality of medical care. ( ) Solo ( ) Small Group (2 or less pediatricians) The employment of PNA's leads to a reduction of the physician's medical responsibility to the patient. ) Medium Group (3 to 5 pediatricians) \_\_Considering the expense of training and super-( ) Large Group (6 or more pediatricians) vising PNA's, there really will be no substantial decrease ) Other (please specify)\_ in medical costs. (24)\_\_\_\_In reality, PNA's come close to practicing med-Location of practice: icine and not nursing.

( ) Urban ( ) Rural

Are you a member of the American Academy of

Pediatrics? \_\_\_\_\_yes \_\_\_\_no

( ) Suburban

class mothers.

ceptance among lower class mothers than among middle

The PNA would be likely to have greater ac-